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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,692	07/17/2003	Masaki Katoh	R2184.0097/P097-A	9309

24998 7590 09/01/2004

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L STREET NW
WASHINGTON, DC 20037-1526

EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/620,692	Applicant(s) KATOH ET AL.	
	Examiner Gautam R. Patel	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/793,131.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-9 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted in previous parent application 09/793,131 under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

NOTES & REMARKS

3. The Applicants are strongly cautioned against using words outside their normal and accepted meaning. Even though Applicants are their own lexicographer in a way, if words are used outside their normal context it creates unnecessary problems all around. For example claim 1, lines 3-6 suggest that area A1 is accessed only during recording operation. This clearly sounds like it a "write only" memory. It gives impression that the area is never visited after it is written. Using words that this a control area or power calibration are may be more suitable.

Double Patenting

PROVISIONAL REJECTION, 35 U.S.C. 101, DOUBLE PATENTING

4. Claims 1-9 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 10 of copending application Serial No. 09/793,131. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim 1-9 are also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-31 of copending application which is in process of becoming a U.S. Patent. Although the conflicting claims are not identical, they are not patentably distinct from each other because removing relationship

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of the addresses and removing arbitrary address tx does not change the scope of the claim 1 as presented and it does not require presence of these limitations.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

As to claims 2-9, since they are also fully disclosed in the application 09/793,131 which in process of becoming a patent; they are therefore considered rejected also as non-statutory double patenting as set forth in the paragraphs here in above.

Claim Rejections - 35 U.S.C. § 101

5. Claim 4 is rejected under 35 U.S.C. §101 as being an exact duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to reject the other as being a substantial duplicate of the allowed claim. M.P.E.P. § 706.03(k).

Claim Objections

6. Claims 8 & 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It is not clear if claims 8 and 9 are independent or dependent. Since they are trying to incorporate the

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limitations of claim 1, it is better if they are written in an independent form including all the limitations of the claim 1.

Corrections are required.

NOTE: Also recording apparatus belongs in separate class from recording medium and restriction will be required if the claim is rewritten in its present format.

Claim Rejections - 35 U.S.C. § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by et al., US. patent 5,930,209 (hereafter Spitzenberger).

As to claim 1, Spitzenberger discloses the invention as claimed [see Figs. 1-9, especially 8] including an area A1, an area A2, an area A3 and at least one inconsecutive part, comprising:

an area A1 starting from an address t1 to which access is made by a recording apparatus only at a time of recording operation;

an area A2 starting from an address t2 to which access is made by the recording apparatus either at a time of recording operation or at a time of reproducing operation; and

an area A3 starting from an address t3 to which access is made either by the recording apparatus or by a reproducing apparatus either at a time of recording or at a time of reproducing, and wherein the addresses t are set consecutively with respect to a physical arrangement of the sectors in each of said areas A2 and A3, and said area A1 has at least one inconsecutive part at which the addresses t are not consecutive with respect to the physical arrangement of the sectors [col. 7, line 59 to col. 8, line 11 and col. 8, lines 35-61 and fig. 8].

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Claim Rejections - 35 U.S.C. § 103

8. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Spitzenberger as applied to claims 1 above.

As to claim 2-4, Spitzenberger discloses all of the above elements, including all areas with consecutive and nonconsecutive addresses. Spitzenberger does not specifically disclose that where $t1 < t1'$, $t2' < t2$, and the starting address $t1$ of said area A1 is set precedingly by the amount of $(t2' - t1')$; or that the addresses t from the address $t1'$ to the address $t2'$ are not consecutive, where $t1 < t1'$, and $t2' < t2$, and arbitrary addresses tx can be set in the range A1' to the extent claimed.

However, arrangement of the addresses that suites the system need is well known in the art. One of ordinary skill in the art would have realized that to copy protect a disk higher the threshold of protection better that system protection and higher protection is a better characteristic to have in the system.

Also, more importantly Spitzenberger clearly teaches that:

Sector addresses, which should violate the linear increasing sequence of the address values can be arranged at random in the specified area [col. 8, lines 57-61].

Therefore, it would have been obvious to have used a sequence such that $t1 < t1'$, $t2' < t2$, and the starting address $t1$ of said area A1 is set precedingly by the amount of $(t2' - t1')$ in the system of Spitzenberger as suggested Spitzenberger himself because

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one would be motivated to increase the threshold of the undesired illegal copying of the discs thus making system more secure.

9. The aforementioned claim 5, recites the following elements, inter alia, disclosed in Spitzenberger:

a pre-pit in the inconsecutive part [col. 7, line 59 to col. 8, line 11].

10. Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Spitzenberger as applied to claims 1-5 above, and further in view of Van Den Enden et al., US. patent 6,269,071 (hereafter Van Den Enden).

Spitzenberger discloses all of the above elements, including a disc and pits and grooves and recording of the addresses. Spitzenberger does not specifically disclose that the addresses are recorded in wobbles of a guide groove to the extent claimed.

However, wobble recording of addresses has been well known in the art for along time. Also Van Den Enden clearly discloses:

Both Spitzenberger and Van Den Enden are interested in improving the optical record carrier recording. Both show address recording.

One of ordinary skill in the art at the time of invention would have realized the system of Spitzenberger would have been sensitive to noise between the tracks and reduction of noise would be a good parameter to have.

Therefore, it would have been obvious to have used a wobble recording of addresses in the system of Spitzenberger as taught by Van Den Enden because one would be motivated to reduce noise of neighbouring tracks in the system of Spitzenberger and provide better signal controls and improve quality of the signals.

11. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 8 and 9. Art rejection will be made in this office action regarding the claims 8 and 9. The speculation required to interpret the claims because of their indefiniteness as noted above (see *In re Steele*, 134 USPQ 292).

Allowable Subject Matter

12. Claim 7 is objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

NOTE: Claim 7 is allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a recording medium which includes "a degree of modulation is equal to or lower than 0.5 obtained when recording is made through the recording apparatus employing either an optical pickup for CD having a wavelength $\lambda = 789$ nm, and a numerical aperture of an objective lens $NA = 0.50$ or an optical pickup for DVD having a wavelength $\lambda = 650$ nm, and a numerical aperture of an objective lens $NA = 0.60$, at a relative speed V such that $V = 0.5 V_{min}$ where V_{min} represents the lowest recordable relative speed between the optical pickup and the recording medium, with a recording signal of the largest mark length using a light-emitting waveform comprising a multi-pulse sequence". It is noted that the closest prior art, Spitzenberger shows a similar apparatus which stores data and addresses in same manner and has inconsecutive addresses as claimed. However Spitzenberger fails to disclose that his recording is for the purposes of speed and recording on CD and DVD and also does not specifically disclose details of NA and wavelengths for CD and DVD.

Other prior art cited

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Idelman et al. (US patent 5,274,645) "Disk array system".
- b. Mitani (US. patent 6,125,061) "Semiconductor device ...".

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

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The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

Gautam R. Patel
Primary Examiner
Group Art Unit 2655

August 28, 2004



GAUTAM R. PATEL
PRIMARY EXAMINER